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Checklist of the larger basidiomycetes in Bulgaria

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Abstract — A comprehensive checklist of the species of larger basidiomycetes in Bulgaria does not exist. The checklist provided here is the first attempt to fill that gap. It provides a compilation of the available data on the larger basidiomycetes reported from, or known to occur in Bulgaria. An alphabetical list of accepted names of fungi, recognized as occurring in Bulgaria is given. For each taxon, the distribution in Bulgaria is presented. Unpublished records about the distribution of some species are also added. An index of synonyms based on literature records from Bulgaria is appended. A list of excluded records, with reasons for their exclusion, is also given. The complete checklist is available at: http://www.mycotaxon.com/.

Key words — biodiversity, Bulgarian mycota, fungal diversity, macrofungi, taxonomy

Introduction

Bulgaria is situated in the Balkan Peninsula in southeastern Europe between 41°14' and 44°13' N, 22°20' and 28°36' E, covering an area of approximately 111 000 km^2. The country's landscape is very diverse. The most prominent mountain range is Stara Planina, running east to west and dividing the country into North and South Bulgaria. The highest part of the Macedonian-Rhodopean massif lies within Bulgarian territory, with its most impressive Rila-Rhodopean massif and its mountains Rila, Pirin, and Rhodopes. The highest peak in Bulgaria (and the entire Balkan Peninsula) is Mousala in Rila Mts, standing at 2925 m. Bulgaria has a temperate continental climate with a Mediterranean influence in its southernmost and easternmost areas.

The main types of natural vegetation present are nemoral, steppe, boreal-mountain, Arctic-Alpine, Mediterranean, and aquatic. The present-day plant cover is dominated by forested communities (32 % of the country area). The most common are the deciduous forests of *Quercus cerris, Q. frainetto, Q. pubescens, Q. dalechampii, Carpinus betulus, Fagus sylvatica,* etc. (nemoral

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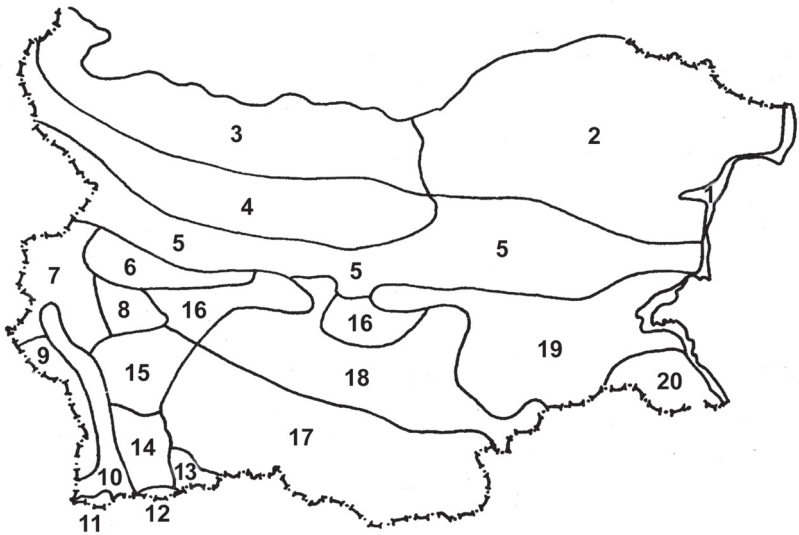

Fig. 1. Floristic regions of Bulgaria: [1] Black Sea coast, [2] Northeast Bulgaria, [3] Danubian Plain, [4] Forebalkan, [5] Stara Planina Mts (= Balkan Range), [6] Sofia region, [7] Znepole region, [8] Vitosha region, [9] West Frontier Mts, [10] Valley of River Strouma, [11] Mt Belasitsa, [12] Mt Slavyanka, [13] Valley of River Mesta, [14] Pirin Mts, [15] Rila Mts, [16] Mt Sredna Gora, [17] the Rhodopes, [18] Thracian Lowland, [19] Toundzha Hilly Country, and [20] Mt Strandzha.

vegetation), followed by the coniferous forests of *Pinus sylvestris, Pinus nigra, Picea abies, Abies alba, Pinus peuce,* etc. (boreal-mountain vegetation). In the lowlands, where the climate is drier, steppe grass vegetation is present, while above the tree line on the mountain ridges scrub (formations of *Pinus mugo* and *Juniperus sibirica*) and grass communities prevail (Arctic-Alpine vegetation). Mediterranean vegetation is comparatively rare and occurs only in the southernmost parts of the country, the Black Sea coast and in some midland Mediterranean spots. Typical examples of Mediterranean vegetation are communities of *Platanus orientalis, Quercus coccifera, Juniperus excelsa, J. oxycedrus, Phillyrea latifolia, Pistacia terebinthus, Paliurus spina-christi,* etc.

There is a substantial diversity in the Bulgarian flora, dictated by the varied landscape and the former glaciation processes in this part of the world, and more than 3900 plant species are found in the country (Petrova 2001).

Contemporary knowledge of Bulgarian larger basidiomycetes is based on a period of 104 years of investigations. The first contribution to the macrofungi from Bulgaria was published by Prof. S. Georgiev (1906). Assyov & Denchev (2004) published the first complete literature-based checklist of Bulgarian

Boletales and their synonyms. A comprehensive checklist of all species of larger basidiomycetes for the country does not exist. The checklist presented here is the first attempt in that direction. It provides a compilation of the available data on the larger basidiomycetes reported from, or known to occur in, Bulgaria. A selected list of literature sources that contain Bulgarian records of larger basidiomycetes is given at the end of the Internet version. The rest of the sources may be consulted in Denchev & Bakalova (2002), Fakirova et al. (2002), Assyov & Denchev (2004), Denchev & Petrova (2005), and Denchev et al. (2006, 2007).

The aim of this checklist is to summarize and present the correct names of the species currently known from Bulgaria, as well as to list their synonymous names occurring in the available sources on the fungi of Bulgaria. We hope that this paper will be a guide for future studies and a helpful source for creation of a database of the Bulgarian mycota.

We intend to regularly update the Internet version of this checklist.

Methods

The checklist is based on the literature data. All available Bulgarian sources were consulted, as well as some sources by European authors (Czech, etc.). A primary list of larger basidiomycetes has been developed. The taxa are given in alphabetical order. The numbers within square brackets, following the authors of each species or infraspecific taxon, refer to the floristic regions where the taxon is reported (Fig. 1). For three regions, a division into subregions is applied as follows: Stara Planina Mts (western, central, eastern), Mt Sredna Gora (western, eastern), and the Rhodopes (western, central, eastern). The generic and species treatment follows many of the recent monographs and particular articles on the European fungi. The names of the authors of fungal taxa are abbreviated according to Kirk & Ansell (1992) and Kirk et al. (2004).

Because many species have been published under different names, a thesaurus of synonyms is separately listed with references to the correct names used in the main list. A list of excluded records, providing reasons for their exclusion, is also appended.

Results

The complete checklist is available on: http://www.mycotaxon.com. In the current first version, 1537 correct names of larger basidiomycete species recognized as occurring in Bulgaria are accompanied by an index of synonyms representing 1020 species and infraspecific taxa based on literature records from Bulgaria. Another 157 taxa representing doubtful, confused or erroneously recorded or illegitimate names are listed as excluded.

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